DIPHTHERIE TOXIN UND DER NERVEN-SYSTEM (Action of Diphtheria Toxin on the Nervous System). Billchousky and Nartouski. (Neurologisches Centralblatt, July 1, 1900).

The authors describe experiments which they have recently carried out in Mendel's laboratory. The pathological changes have been located in three situations—the peripheral nerves, the spinal cord (parenchymatous and interstitial myelitis, with secondary changes in the nerves and muscles), and the muscles. The authors injected sterile diphtheria toxin into white mice, rabbits, and guinea-pigs. Large doses produced rapid death, with anatomical evidence both of general intoxication and of a special action on the vascular system. The animals which survived this stage developed, eight or ten days after the injection, more or less typical post-diphtherial palsy. The vessels were found quite full and with pathological changes in their walls leading to scattered foci of hemorrhage. There was no sign of meningitis or encephalitis, nor were the nerve cells of the brain or cord with a few isolated exceptions affected. Preparations by Marchi's method showed nothing noteworthy in the brain or cord, but extensive degeneration of the myelin sheaths of the peripheral nerves; this was confirmed by Weigert's procedure. The muscle fibers were the seat of fatty change. The conclusion is drawn that the essential lesion is parenchymatous degeneration of the peripheral nerves; the slight changes in the anterior horn cells are held to be secondary or of cachetic origin; while the vascular alterations play but a subordinate rôle in the pathogeny of post-diphtherial palsy. JELLIFFE.

SULLE MODIFICAZIONI CHE IL PROCESSO PUTREFATTIVO PUÈ IMPRIMERE ALLE CELLULE NERVOSE GIÀ PATHOLOGICAMENTE ALTERATE (Putrefaction in Pathological Changes in Nerve Cells). L. Bardzky. (Rivista di Patologia Nervose e Mentale, vi., 1900, No. 2, p. 49).

This observer has attempted to decide the nature and extent of putrefactive *post-mortem* changes in the nerve cell as distinct from the pathological changes of disease during life, a point of special importance in all researches on the finer cortical pathology of the human brain. After referring to the work of Schultze, Hutchinson, Trezebinski, and others, he gives the following results obtained by himself: (1) The coloration (chromophilia) of the achromatic substance of the nerve cell and its rarefaction are changes which are so subtle and shifting as to be impossible to recognise with certainty as due to morbid agencies occurring during the evolution of the putrefactive process; (2) that vacuolation of the fundamental substance (protoplasm) of the cell is a change belonging to the same category; (3) that chromatolysis or destruction and disappearance of the substance of Nissl's bodies, partial or total, has its peculiar and specific aspects which it mainains very constantly, so that these different characteristics can be recognised even where putrefactive changes are somewhat advanced; (4) that the initial stage of chromatolysis preserves a very constant appearance, which is characterised by a swelling and breaking up of the chromatic bodies; (5) that the cribriform condition of the cell body is clearly recognisable only in the initial stages of putrefaction, and this condition readily undergoes change into pulverulent state (dusty disintegration and dispersion of the chromatic substance) of the protoplasm, which is identical with the condition due to simple cadaveric decomposition;

(6) that the pulverulent state of the chromatic substance is difficult to admit as being of pathologic nature and due to disease *intra vitam*, as both this and its precedent condition, the cribriform stage, are so readily produced under the influence of putrefactive agencies. The methods of Nissl were used in the author's researches.

JELLIFFE.

PSYCHIATRY.

CONTRIBUTION A LÉTUDE DU SUICIDE DANS LA PARALYSIE GÉNÉRALES (Suicide in General Paralysis). A. Monestier. (Annales medico-psychologiques, March, 1900, p. 189).

Monestier comes to the following conclusions: Suicide is quite common in general paralysis, both in the course of the disease and in its initial period. There are, however, a number of cases where the suicide is only apparent, and where the patient does not really wish to put an end to himself. He becomes the victim of his illusions, and loses consciousness of the danger he may run on account of the marked disturbance of a clear perception of the reality of things. In most of the cases of deliberate suicide the suicidal ideas have the characteristics not only of dementia, but also of the delusion which the patient may have, a delusion which is almost always irregular and transitory. This irregularity and transitory character are more or less marked; most frequently the ideas of suicide are sudden and of short duration. It is easy to divert the patient from them and he takes no care to hide them. There are, however, other cases where the means employed to commit suicide differ in no degree from those which other insane employ. The patients seem to have a definite idea of committing suicide as shown by the precautions which they take, by the premeditation of the act, and by the length of their preparations for it. In these cases there is less dementia.

JELLIFFE.

PROGNOSTIC ÉLOIGNÉ DES PSYCHOSES DE LA PUBERTÉ. (Prognosis of the Psychoses of Puberty.) Cullerre (Archives de Neurologie, x., 1900, September, p. 246.)

Cullerre has studied 120 attacks of the psychoses of puberty in subjects from fifteen to eighteen years of age—53 males and 57 females. Of these 3 died in the first attack. There were 33 cases of dementia præcox which came on in 18 during the first attack, in 9 during the second, and in 2 in the third. In 4 cases the attack degenerated into secondary systematized insanity with mental enfeeblement. There were 20 cases of periodic insanity, all forms being represented. There were 25 cases of recurrence with varying issue. These recurrences were most frequently benign and were at considerable intervals apart. This group was the most favorable in point of view of ultimate prognosis. There were 9 cases of insanity with a consciousness of the condition, obsessions, or impulsive states. These cases were generally permanent. In 30 cases the patient disappeared from observation after the first attack. The clinical aspects of the first attack, however, would permit us to classify them with the subjects of the preceding groups. The prognosis of the attack in the insanity of puberty is favorable in the enormous proportion of 79%, but the ultimate prognosis of the disease is more serious. The individual who is cured of this form of mental disease runs the risk in the future of recurrences, of dementia præcox, of per-